

IN THE CLAIMS

Please cancel claims 1-14 and 23-28 and add claims 29-38.

29. A method for forming a MOS transistor, comprising:

providing a semiconductor;

forming a MOS transistor source region in said semiconductor;

forming a MOS transistor drain region in said semiconductor;

forming a MOS channel region in said semiconductor between said source region and said drain region; and

implanting a species in said semiconductor beneath said MOS transistor channel region so as to induce stress in said MOS transistor channel region.

30. The method of claim 29 wherein said species is selected from a group consisting of oxygen, germanium, and carbon.

31. The method of claim 29 wherein carbon is implanted beneath said MOS transistor channel region to induce a compressive stress in said MOS transistor channel region.

32. A method for forming a MOS transistor, comprising:

providing a semiconductor;

forming a MOS transistor source region in said semiconductor;

forming a MOS transistor drain region in said semiconductor;

forming a MOS channel region in said semiconductor between said source region and said drain region; and

implanting a species in said semiconductor confined to a region substantially beneath said MOS transistor channel region so as to induce stress in said MOS transistor channel region.

33. The method of claim 32 wherein said species is selected from a group consisting of oxygen, germanium, and carbon.

34. The method of claim 32 wherein carbon is implanted beneath said MOS transistor channel region to induce a compressive stress in said MOS transistor channel region.

35. A method for forming a MOS transistor, comprising:

providing a semiconductor;

forming a gate oxide layer on said semiconductor;

forming a MOS transistor gate structure on said gate oxide layer above a first region in said substrate; and

implanting a species in said semiconductor beneath said MOS gate structure so as to induce stress in said first region.

36. The method of claim 35 wherein said MOS transistor gate structure comprises polysilicon.

37. The method of claim 36 wherein said species is selected from a group consisting of oxygen, germanium, and carbon.

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(concluded)*

38. The method of claim 36 wherein carbon is implanted beneath said MOS transistor gate structure to induce a compressive stress in said MOS transistor channel region.

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